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TAILORED HEALTH AND SAFETY

# Occupational Health Information Paper

Independent Health and Safety Taskforce

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## Purpose

This paper is to inform Taskforce discussion around the key barriers to good occupational health outcomes.

The paper outlines what occupational health is and where it sits functionally. It explores why there is no outrage at the number of people dying from occupational ill health and disease; and who has the capability to look holistically at the issues and coordinate action to reduce harm.



## EXECUTIVE SUMMARY

### **The barriers to effective occupational health outcomes are already known**

The barriers - and recommendations to address these, have been identified in numerous reports over the past 30 years<sup>1</sup> and yet they remain unaddressed.

#### **1. Occupational health has a low profile in New Zealand**

The low visibility of occupational health issues leads to an erosion of funding, a lack of activity, limited public and political drivers for change, and status quo. Occupational health is not alone in having a low profile – many other issues, i.e tobacco/smoking harm, have started out with an equally low profile. As the data has developed, and lobby groups have brought the issue to light, the political and public profile has been raised. This profile and awareness raising is required for occupational health.

#### **2. The occupational health system is fragmented**

Effectively evaluating systemic risk requires examination of all of the pieces of the puzzle together. While elements of an effective occupational health system are in place, these are spread among a number of Government agencies that are not well co-ordinated. There is no clear responsibility or accountability for occupational health activity. This creates a risk that each agency will focus on its narrowest task, viewing the need to deal with the big picture as beyond its mandate.

The multidisciplinary and inter-sectoral nature of occupational health leads to a requirement for strong leadership and coordination of activity. Occupational health has been subsumed within the infrastructures for health and safety, and undervalued in the wider health system.<sup>1</sup>

#### **3. We do not know the size or nature of the problem with any accuracy**

The systems for the collection, analysis and use of occupational health data are ineffective. The burden of occupational disease can't be effectively addressed until the size of the problem and the nature of the diseases involved are known.<sup>1</sup> With a greater focus on the collection and analysis of data, there can be a more responsive regulatory system, which is better able to manage existing and emergent risks.

Monitoring exposures, control systems and health outcomes helps to identify trends over time, develop awareness of key issues and ensure compliance with legal requirements. With this information accurate risk assessments can be developed, prevention activities can be targeted and supported, and priorities set – enabling preventative action earlier than when monitoring outcomes alone, and achieving more.

#### **4. There is scarce capability and capacity for occupational health activity**

Capability and capacity issues impact the entire occupational health system. The low visibility of occupational health, the absence of leadership and coordination for activity, and the limited training opportunities available have meant that technical expertise and resourcing have been eroded over time. They are now at an unsustainable level. Without capable people and without adequate resourcing, there will be little improvement to occupational health outcomes.

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<sup>1</sup> Driscoll T, Mannetje A, Dryson E, Feyer A-M, Gander P, McCracken S, Pearce N, Wagstaffe M. The burden of occupational disease and injury in New Zealand: Technical Report. NOHSAC: Wellington, 2004



## INTRODUCTION

### **Occupational health takes a back seat to occupational injury**

1. Occupationally related ill health and disease in New Zealand accounts for greater mortality and morbidity than occupational injury;<sup>2</sup> yet there is greater Government and industry activity focused on the reduction of occupational injury.
2. Every year it is estimated that around 100 people die from occupational injury<sup>3</sup>. The public is accustomed to seeing reports of these deaths in the media, following for example quad bike roll-overs, falls from height, trench collapses and the Pike River tragedy. Driven by media and public attention, governments often comment on the necessity to prevent such incidents, and drive fervent activity focused on high hazard sectors.
3. Every year around 800 people are estimated to die from occupational disease and ill health in New Zealand<sup>3</sup>. Their deaths are not reported in the newspaper, there are no commissions of inquiry and there is little public outcry. The social and economic burden of occupational disease and ill health remains hidden.
4. Every day more people are exposed to health hazards at work, but unlike occupational injury, the consequences are often not realised for many years. Occupational health is a ticking time bomb that it is easier to ignore than to get to grips with. Occupational health, it appears, is firmly in the “too hard” basket.

## Definitions

### **Occupational injury**

5. The impact of an occupational injury on a person is usually realised quickly, the hazards involved are relatively apparent, and it is often easy to establish whether the injury was caused by work or was work-related. For example crush injuries caused by being hit by a forklift truck in a warehouse.

### **Occupational ill health**

6. Occupational ill health may not be realised for many years, the hazards involved are not always obvious, and it is not always easy to isolate the cause as occupational. This makes occupational health a different challenge to that of workplace injury. It requires different skill sets, knowledge and regulatory tools to manage, as well as requiring collaboration and coordination between the many disciplines and agencies involved.

### **Occupational health practice**

7. The World Health Organization’s definition is ‘Occupational health practice aims to support improvements in the health of the population through maintaining and promoting the health of workers, ensuring healthy work and healthy work

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<sup>2</sup> Health Outcomes International Ltd. (2005). Methods and Systems Used to Measure and Monitor Occupational Disease and Injury in New Zealand: NOHSAC Technical report 2. Wellington

<sup>3</sup> Ministry of Business Innovation and Employment: Annual state of workplace health and safety report 2012



environments, and developing workplace cultures that are supportive of health and safety.’

8. Both occupational and non-occupational exposures and environments affect a person’s overall health. It is necessary to consider the whole person to achieve good health outcomes. Occupational health practice is therefore part of both the health system (public health and primary health care) and the infrastructures for health and safety, and consequently involves many disciplines and many sectors<sup>4</sup> - appendix 2 outlines some of those involved.

### **Occupational health is a broad and complex field**

9. Occupational health practice seeks to ensure healthy working people to enable New Zealand to be productive and have a strong economy.<sup>5</sup> It is socially and economically unacceptable for work to cause death and disease. For industry, workers in poor health mean more frequent absenteeism, increased disability, more accidents and sub-optimal productivity.<sup>6,7</sup>
10. The term occupational health conjures up images of chemicals with toxic symbols on packaging, and people in gloves with masks and protective suits. But occupational health is not just about chemicals, or exposure to hazardous substances that are regulated under the HSNO Act. It covers a wide range of other hazards and conditions.
11. Occupational health is broad in scope, and management of occupational health has distinct differences to that of managing occupational injury.

### **Occupational health hazards and harm can be difficult to identify**

12. The hazards that can cause occupational ill health are not always visible or obvious to a person without a level of technical expertise. They can include such things as: chemicals, biological agents, physical and psychosocial hazards. Example hazards have been included in appendix 1.
13. Whilst most people can see and understand that a person who places their hands near an unguarded saw is at risk of losing at least some fingers, it is not as easy to see that a person inhaling mould spores when moving damp hay is at increased risk of developing respiratory disease or cancer.
14. To manage occupational health it is not sufficient to just understand what the hazards are – it is also necessary to understand how exposure occurs.
15. Exposure to health hazards can occur in many ways. Some examples are inhalation, skin contact, ingestion, or being in an environment or situation that

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<sup>4</sup> ILO Occupational Health Services Convention Number 161 and Recommendation Number 171

<sup>5</sup> WHO Connecting Health and Labour: Global Conference 2011

<sup>6</sup> Workplace Health Promotion: Policy Recommendations that Encourage Employers to Support Health Improvement Programs for their Workers

<sup>7</sup> Australasian Faculty of Occupational & Environmental Medicine (AFOEM) Royal Australasian College of Physicians New Zealand Consensus Statement on the Health Benefits of Work



places a physical or psychological demand on the body (such as stress, fatigue, loud noise or awkward body positioning).

16. The consequences of exposure to health hazards may vary between different population groups – i.e. different genders and ethnicities may react differently to the same exposures.
17. A level of technical expertise can be needed to understand both the health hazard and the nature of exposure – and to be able to manage both in the context of the individual and workplace environment.

### **Changes in the workforce and factors outside work play a role**

18. To further complicate matters, today's workforce doesn't have the stability, permanence or predictability in their jobs of past decades. Many people now have many jobs over their lifetime with multiple exposures to different health hazards. These may impact in varying ways on our biological systems.
19. Harm can occur after prolonged exposure to a health hazard(s), a long time after a single exposure to a health hazard, or shortly after exposure to a health hazard.
20. Harm can be acute or chronic. It can have a short or a long duration, be frequently reoccurring, and can reduce a person's quality of life for a significant period of time before causing an early death (i.e. occupational cancer)
21. The exposures a person has in their non-work life can also exacerbate ill health and vice versa, and individuals may be affected differently based on factors including age, ethnicity and sex.
22. Diseases have many causes (both occupational and non-occupational) and cases of ill health resulting from the different causes can be clinically indistinguishable. Occupational ill health can therefore go undetected, unreported and consequently unmanaged.

## **THE LEGISLATIVE FRAMEWORK**

Detailed discussion of the legislative framework has been provided to the Taskforce in a separate paper and has not been duplicated in this paper.

### **The legislation is complex and unclear**

23. The regulatory framework for occupational health is fragmented. It is split across multiple pieces of legislation and multiple compliance agencies. The risk is that it appears more complex, and it is harder for industry to access the information and advice that they need.
24. The regulatory framework for occupational health consists of the following key pieces of domestic legislation:
  - The Health and Safety in Employment Act
  - The Hazardous Substances and New Organisms Act
  - The Accident Compensation Act.



Other pieces of legislation are relevant to occupational health – for example the Health Act, the International Maritime Dangerous Goods Code and the Maritime Transport Act – discussion of these is beyond the scope of this paper.

## **The Health and Safety in Employment Act (HSE Act)**

25. The HSE Act is principles-based legislation. It outlines who owes a duty to ensure health and safety, and is centred on the identification and management of hazards.

### ***Notifications***

26. There is, through the HSE Act, a requirement to report specified cases of ill health and disease e.g. through serious harm reporting. Notifications and reports of harm enable the compliance agency (MBIE) to gather intelligence and investigate specific incidents. Investigation outcomes add to the intelligence and can be used to inform proactive compliance initiatives at the national level. However, because cases of occupational ill health may not be realised until some years after exposure, this can compromise the compliance agencies ability to investigate or take preventative action. A reliance on reporting and notification of health outcomes alone places the regulator in reactive mode and is unlikely to secure good occupational health outcomes.

27. To effectively manage occupational health the regulatory system needs to be really responsive – focusing on the anticipation of ill-health and disease through the proactive monitoring and management of exposures as well as monitoring health outcomes. Through a focus on exposure monitoring programmes within industry, coupled with awareness campaigns, the compliance agency would be better able to regulate occupational health,<sup>8</sup> and secure an improvement in occupational health outcomes.

### ***A level of expertise is often required to interpret requirements or fulfil duties***

28. The HSE Act places a duty on employers to monitor the exposures of employees to health hazards where exposures are unable to be eliminated or isolated. This requires the employer to have identified the hazard in the first instance, and then to have the capability to identify and to undertake the appropriate type and frequency of monitoring that is needed.

29. Once the monitoring has been undertaken, the employer needs to have the capability to interpret the results, and understand them in the context of their employee demographic and workplace activity for them to be of any use.

30. An employee doesn't have to provide the employer with consent to undergo health monitoring. This can lead to an employer trying to manage occupational health without having all of the pieces of the puzzle.

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<sup>8</sup> Strengthening of Health Surveillance of Working Populations: The use of International Statistical Classification of Diseases (ICD-10) in Occupational Health, WHO Geneva 1998



### **Information and guidance**

31. The HSE Act outlines that a function of an inspector is to provide information and education to improve safety at work and the safety of people at work, and requires that inspectors *shall* perform this function. In reality, due to capability and capacity issues of the compliance agency and inspectorate, occupational health information and education is not prioritised around occupational health.
32. There is also a provision that enables approved codes of practice (ACOPs) to be developed, but no obligation for the compliance agency to develop and maintain these. There is no specific requirement for any guidance materials related to occupational health to be developed.
33. The limited role clarity amongst the compliance agencies combined with a dearth of cross agency leadership in occupational health means that little guidance material has been developed. That which has been developed has not been well maintained and provides little support for industry.

### **The Hazardous Substances and New Organisms Act (HSNO)**

The HSNO Act is out of scope for the Taskforce review and a detailed consideration of the HSNO Act was therefore out of scope for this paper.

34. The HSNO Act covers the management of over 100,000 hazardous substances and new organisms from cradle to grave. Along that journey for some hazardous substances there is occupational use. Occupational health activity is concerned with the occupational use of a hazardous substance. The HSNO controls point to workplace exposure limits amongst other requirements to control occupational risk.
35. But HSNO is not only concerned with occupational health or the use of hazardous substances and new organisms in the occupational environment. It also covers environmental and public health risks. Appendix 4 shows how the HSE and HSNO Act interact for occupational health issues.
36. The HSNO Act combines multiple previous legislative requirements in a way that is admired internationally for its sophistication<sup>9</sup>. However, most agree that the Act is over-engineered for the New Zealand environment and very difficult to put into operational effect. MBIE, MfE and the EPA are working to determine whether this is an interface issue, or whether there is a legislative deficiency.
37. Many within industry and the health and safety profession have difficulty understanding what is required to comply with HSNO. The HSNO legislation prescribes the controls that apply to the specific circumstances of each business. When storing fertilisers for example, they may need to be kept a safe distance from other chemicals, hazards and receptors (separation distances). However, this separation distance varies depending on the nature and quantity of the substances, and the location of the business. This approach is designed to prevent over or under regulation but at the same time, introduces complexity.

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<sup>9</sup> Discussion with the EPA



38. An alternative approach would be to allow industry to take all practicable steps and determine themselves the controls to apply to their own particular circumstances. This would mean for example that businesses would need to calculate their own separation distances and make a judgement as to what was practicable with consideration of relevant receptors and variables. While this would reduce the complexity of the legislation, industry would need to have the capability to identify the nature of the controls required. This is unlikely to be resolved by generic guidance alone due to the multiple variables that apply to each business.
39. Compliance and enforcement activity for HSNO is low. However, increased enforcement of the HSNO legislation alone is unlikely to lead to an improvement in occupational health outcomes unless activity is underpinned by clear guidance and support for industry.

### **Accident Compensation Act (ACC)**

40. The Accident Compensation Act provides for a scheme to manage personal injury – minimising both the overall incidence of injury in the community, and the impact of injury on the community.
41. The term personal injury in the Act means death or physical injuries – mental injuries may be covered where there are specific circumstances or where they are caused because of a physical injury.
42. ACC recognises a small number of occupational diseases and causes of ill health<sup>10</sup>, and provides cover for these. Research<sup>11</sup> suggests that individuals achieve better health outcomes when their ill health or disease is compensated through ACC.
43. Individuals with compensated ill health and diseases receive improved rehabilitation support, early interventions for treatment, and adaptations to the working environment that enable them to stay at work. Where ill health and disease is not attributed to an occupational cause, or a claim is denied, the individual receives no ACC compensation or support.
44. This could mean a greater financial burden is being placed on the individual and the health and social welfare systems. The issues that caused the ill health or disease may go unmanaged and the compliance agency has a reduced opportunity to support the employer to make improvements or to hold the employer to account. (This is the case where an occupational cause is not identified – and thus no notification is made to the compliance agency).
45. ACC coordinates rehabilitation activity for work-related injuries, as well as activity outlined in the injury prevention strategy. Broad occupational health issues are not part of the New Zealand Injury Prevention Strategy due to the definition of the term *injury* in this strategy.

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<sup>10</sup> Schedule 2 to the ACC Act

<sup>11</sup> <http://m.otago.ac.nz/news/otago043411.html>





46. ACC also has responsibility for injury prevention activities relating to the home and the workplace. ACC provides advice to industry on injury prevention in addition to the advice provided from the health and safety compliance agency. If such activities are not well coordinated between the two agencies, this can lead to duplication and misalignment of effort, and confusion for industry.

## **EXISTING PLANS FOR OCCUPATIONAL HEALTH ACTIVITY**

### **The existing plans for occupational health activity could lead to improvement**

47. Occupational health activity is undertaken in New Zealand – albeit on a smaller scale to occupational injury. Three plans outline the objectives for occupational health activity – the Workplace Health and Safety Strategy (WHSS)<sup>12</sup>, the National Action Agenda (NAA), and the Occupational Health Action Plan<sup>13</sup>.
48. The current focus of occupational health activity as overseen by MBIE is outlined primarily in the Workplace Health and Safety Strategy (WHSS). This strategy is supportive of the wider government aim of reducing inequalities in employment, health, education and housing.
49. The WHSS outlines that more work is required to identify the priority sectors for occupational ill health and disease, therefore the strategy focuses occupational health activity on:
- a. The determination of the problem
  - b. The building of capability
  - c. The implementation of initiatives for the prevention of occupational diseases and ill health for which slightly more information is known
50. The WHSS is supported by the national action agenda (NAA) which has three objectives relating to occupational health identified:
- a. Reduce workers' exposures to health hazards,
  - b. Raise awareness of occupational health issues,
  - c. Improve surveillance of occupational disease.
- Through the NAA sector actions plan were developed for those sectors that have the highest injury rates (construction, fishing etc). An occupational health action plan was also developed. MBIE have the lead oversight for this plan, but they are not responsible for all of the actions outlined within it and have limited power to require other agencies to undertake work towards it.
51. The occupational health action plan outlines a further three objectives:
- a. Reduce exposure to five identified hazards (cancer-causing agents, respiratory hazards, noise, skin irritants and psycho-social hazards)
  - b. Improve New Zealand's capability in occupational health

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<sup>12</sup> Department of Labour. (2011a). Workplace Health and Safety Strategy for New Zealand to 2015 – National Action Agenda 2010–2013. Retrieved January 10th, 2013, from <http://www.dol.govt.nz/whss/action-agenda/index.asp>

<sup>13</sup> Department of Labour. (2011c). Occupational Health Action Plan to 2013. Retrieved January 10th, 2013, from <http://www.dol.govt.nz/whss/sector-plans/occupational-health/>



- c. Build relationships with government, industry, and occupational health researchers and practitioners.
52. The objectives outlined WHSS, NAA and occupational health action plan remain valid areas for focus despite the limited baseline information available for intervention evaluation. Little progress has been made by the compliance agency towards meeting the objectives in the plans.
53. The occupational health action plan has started the long journey of raising awareness and could be viewed as a placeholder for something better to be developed in its place.

## **OCCUPATIONAL HEALTH HAS A LOW PUBLIC AND POLITICAL PROFILE**

54. The burden of occupational health is unseen. The public do not know about it – and consequently there is no public outrage at the ineffective management of this issue – or subsequent political imperative to address it. Occupationally-related ill health continues to adversely affect the New Zealand population and the New Zealand economy, and despite knowing about this, the low profile of occupational health has been a key barrier to progress over the past 30 years.
55. The dilution of occupational health within the compliance agency reflects the diminished national profile of occupational health over the years. Any activity that is undertaken by the compliance agency is not publicised or targeted in the same way as activity for occupational injury - for example, the national quad bike campaign involved collaboration between MBIE, NZTA and ACC. It was very focused, well publicised, and appropriately resourced. Focused activity in occupational health is required for meaningful partnerships to emerge and for the profile and awareness of issues to be raised.
56. The inability to accurately attribute occupational causes of ill health, or to determine intervention success with any accuracy or speed means that occupational health has not been seen as a high public or political priority. The lack of leadership and coordination of activity between the agencies and disciplines involved has exacerbated this.
57. Multiple panels, committees and groups have been set up, but they have not been effective in raising the profile of occupational health for a sustained period of time. The panels/committees include:
- NOHSAC (the National Occupational Health and Safety Advisory Committee, established in 2003 and disestablished in 2009)
  - Ministerial Advisory Panel on Work-related Gradual Process, Disease or Infection
  - OSH Cancer Panel
  - OSH Respiratory Disease Panel
  - OSH Solvent Panel
  - OSH Asbestos Panel



- Injury Surveillance Ministerial Advisory Panel
- Health Information Strategy Action Committee.

These are either under review, have been disestablished, or have been ineffective.

## **THE ABSENCE OF LEADERSHIP PARALYSES PROGRESS**

58. Occupational health activity is fractured, and poses the risk of each agency involved with occupational health activity focusing on its narrowest task, viewing the need to deal with the big picture as beyond its mandate. Effective prevention of occupational ill health requires co-ordinated effort by the multiple stakeholders<sup>14</sup> within and external to the infrastructures for health and safety. This will improve broader health outcomes in New Zealand, and secure a productive work force for the future.
59. Multiple Ministerial portfolios overlap with areas of occupational health-related activity – for example the Minister for Labour (for health and safety enforcement), the Minister for Health (for health data collection, primary health care and public and environmental health activity), the Minister for Environment (for HSNO) and the Minister for ACC (for injury prevention, compensation and rehabilitation issues).
60. There are also multiple government strategies that overlap with occupational health activity - but operational activity is often not integrated. Examples of overlapping strategies include the New Zealand Health Strategy (Ministry of Health), which outlines goals for reducing workplace injuries and providing healthy workplace programmes, and the Health Promotion Agency (HPA) who undertake work on sun safety, cardiovascular disease and drug/alcohol use.
61. The workplace can serve as a setting for delivery of essential public-health interventions, and for health promotion. This doesn't always occur leading to duplication and misalignment of effort between those in the health sector and occupational health.<sup>15</sup> i.e. the HPA work directly with workplaces for some of their activities, meaning there could be multiple visits to work places by both HPA and the health and safety regulator to talk about similar issues.
62. If other work is undertaken by government agencies on similar or supporting issues, it would seem sensible to leverage resources and do the work together. Lessons learned from other Countries indicate that all stakeholders must be involved for occupational health management to be successful.<sup>16</sup>
63. In particular, there is an absence of leadership in the coordination of activity between the occupational health and safety system and the health system. When developing policies for workers health, all relevant stakeholders should be

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<sup>14</sup> WHO Healthy Workplace Framework and Model: Background Document and Supporting Literature and Practices

<sup>15</sup> WHO: Workers Health: Global Plan of Action, Sixtieth World health assembly May 2007

<sup>16</sup> WHO National Profile of Occupational Health System in Finland, 2012



involved,<sup>5</sup> and should be part of an integrated response to the specific health needs of working population.

### **The Workplace Health and Safety Council do not go far enough**

64. A forum for leadership has been attempted through the Workplace Health and Safety Council (WHSC). The WHSC is a tripartite forum that was established in 2007 to advise government on workplace health and safety issues and to provide leadership, coordination and advice to ministers on relevant legislation, standards and policies to support improved workplace health and safety outcomes in support of the workplace health and safety strategy.
65. The council's focus is not solely on occupational health, and there is little evidence to show that it has been effective in relation to the coordination and leadership of occupational health activity.

### **MBIE has a role but no clear responsibility**

66. No agency has taken a lead role in occupational health across all of the sectors or disciplines. This has contributed to the fragmentation of effort and under-resourcing. MBIE is widely thought of as the lead agency for occupational health, yet the ministry is not required to co-ordinate activity across the sector. Equally at the time of discussions with MBIE, there were no memorandums of understanding, agreements or effective coordination mechanisms in place between MBIE and the other agencies in relation to wider occupational health activity.<sup>17</sup>
67. MBIE does not currently have a strategic approach to occupational health, consequently internal roles and responsibilities have not been clarified and resources and areas/topics of focus have not been clearly identified. With the limited resources they have available the compliance agency cannot successfully undertake or lead occupational health activity.

## **INFORMATION AND DATA SYSTEMS ARE INEFFECTIVE**

### **The size and nature of the occupational health burden in New Zealand is not known**

68. Managing work-related exposure to health hazards is critical – but attempting to manage what is not known or understood is unlikely to be effective.
69. The size and nature of the occupational health problem in New Zealand cannot be determined with any accuracy. New Zealand is reliant on academic estimates or information from other countries to estimate the burden. From these sources it is estimated that:
- a. Eight-hundred deaths occur every year in New Zealand from occupational disease: particularly
    - cancer (237-425 per year)
    - respiratory disease (200 per year)

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<sup>17</sup> Discussion with MBIE representatives 13/2/2013



- heart disease<sup>14</sup> (which can be related to stress and fatigue)
- b. Two to four per cent of deaths of all people over the age of 20 are due to occupational disease and 3–6% of all cancer deaths in people aged 30 or older are due to occupational cancer<sup>19</sup>.
  - c. Seventeen-thousand to twenty-thousand new cases of work-related disease occur every year<sup>19</sup>.
  - d. Forty-two thousand people suffer occupationally-related noise induced hearing loss.
  - e. In 2010 the social and economic costs to New Zealand from work-related injury and disease were around \$3.5bn. Of this, \$2.4bn related to costs for uncompensated work-related disease.
  - f. In Britain, work-related stress, depression and anxiety account for an estimated 13.8 million reported lost working days per year. (We do not have this information for New Zealand.)
  - g. In the European Union 50–60% of all lost workdays are due to stress-related disorders. (We do not have this information for New Zealand.)
  - h. In the European Union 13.8% of cancers in men and 2.1% of cancers in women can be attributed to work. (We do not have this information for New Zealand.)
70. Data collection requirements have not been defined, and current processes for collection and analysis are inconsistent, non-standardised, passively collected and split across multiple agencies.
71. There is a reliance on health data. However, medical care providers have limited incentives and requirements to report diagnoses of occupational ill health or disease, and there are difficulties with attributing causes of ill health and disease to occupation. Equally, when occupation is identified and recorded, there are no standardised reporting codes for occupation type – this impacts effective analysis. There can therefore be no certainty that the data collected is accurate, and significant underreporting is likely.<sup>18</sup> A list of example data collection methods for occupational health is included in Appendix 3.
72. There is insufficient surveillance of health outcomes and exposures either by industry or by the compliance agency, and insufficient oversight of this data, to enable the effective targeting of resources or the identification of priority action areas.
73. The HSE Act places the duty to ensure health and safety firmly on the employer, including monitoring of health and exposures. Any employer-driven monitoring information is not recorded in a centralised repository or necessarily linked to the employee's personal national health records, and so is lost when they leave that employer. This reduces the ability to track health monitoring and exposure information across a person's working life.

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<sup>18</sup> Richards-Taylor A, Keay J, Thorley K, Do GPs record the occupation of their patients? Occupational Medicine 2013;63:138–140 Advance Access publication 20 December 2012 doi:10.1093/occmed/kqs209



74. Occupational health data and information is needed so that new risks and changes to existing risks can be identified. Data will also show the effectiveness of management techniques. Without robust information the regulatory system cannot be truly responsive. The focus of activity will remain on the reactive management of outcomes, and new and emerging risks may go unmanaged.
75. Funding for academic research is falling, and research is focused on occupational safety rather than occupational health.<sup>19</sup> The compliance agency has limited resources to undertake research. Research supports other data collection processes, and improves the ability to resource and target initiatives in the areas most likely to reduce harm. Improvements in the level and focus of academic research are therefore critical to occupational health improvement.
76. Because occupational health and the measurement of health outcomes are complex, it is unlikely there will be definitive evidence in the short term that interventions reduce cases of work-related ill health. Developing an effective data and information system will take considerable funding and time. A pragmatic approach is therefore needed to balance the gathering of information and data with taking action - based on the information that is known.

## **CAPABILITY AND CAPACITY ISSUES ARE SYSTEMIC**

### **Funding, staffing, and expertise have fallen**

77. The principle focus of the Health and Safety in Employment Act is the requirement to identify and control hazards. This heavily relies on those in the system having a basic understanding of what those hazards are and how to control them - supported by a competent and capable compliance agency. The levels of occupational health capability and capacity in the system are reduced in comparison to occupational safety.

### **Funding is not prioritised**

78. The resources of the compliance agency have been eroded over time. Prior to the Pike River tragedy, funding for health and safety activity was continuing to reduce. MBIE was tasked with the development of the sector action plans - including the occupational health action plan with no additional funding. Funding for occupational health activity is not ring-fenced. It is estimated that the internally allocated funding for the oversight of the occupational health action plan is only around \$100K per year - funding comes from the same allocation for all of the action plans<sup>20</sup> - meaning that occupational health may be competing for funding with other more high profile activities.
79. An expanding economy requires a commensurate increase in the number of health and safety professionals - to ensure the greater number of businesses in operation achieve compliance. Equally, when an economy contracts, there can be

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<sup>19</sup> Pearce N, Dryson E, Gander P, Langley J, Wagstaffe M. National profile of occupational health and safety in New Zealand. Report to the Minister of Labour. NOHSAC: Wellington, 2007.

<sup>20</sup> Discussion with MBIE representatives 13/2/2103.



an incentive for industry to take risks, and there is greater need for increased compliance activity. The nature of funding for health and safety services over time may mean that the system is currently functioning with fewer resources but is required to meet a greater demand for service delivery.<sup>21</sup>

80. Funding for the occupational health compliance and enforcement system is through Vote: Labour. ACC receives Vote: ACC funding to provide services in respect of rehabilitation, compensation and injury prevention. The work-related injury prevention budget within this covers a range of activities, including programmes run to address specific occupational health-related issues such as occupational-overuse syndrome and noise-induced hearing loss. Funding for occupational health is not ring-fenced, and allocation of funds within the compliance agency is internally managed.
81. HSNO enforcement (hazardous substances) is undertaken by many agencies that do not receive funding for their activities. Therefore at times when there is pressure to do more with less, activities which are not funded, which have no profile, and which are not driven politically, are unlikely to receive attention from the agencies.

### **Compliance agencies' staffing has fallen, and training is inconsistent**

82. Health and safety inspectors are required to undergo training as detailed in the Health and Safety (Prescribed Matters) Regulations. Training is provided through internal courses and a one-size-fits-all approach. The general occupational health training provides a basic platform for understanding, but does not provide the inspector with a comprehensive understanding of occupational health.
83. When the occupational health action plan was launched, no training or professional development was provided to the general inspectorate to help them to undertake their compliance activities effectively in this area.
84. Specialists in occupational health (nurses, hygienists, ergonomists) have historically been employed by MBIE, the lead health and safety compliance agency to support the general inspectorate. MBIE has reduced the number of occupational health professionals employed over from around 44 in 1992/3<sup>19</sup> to only a handful in 2013.
85. The decline in specialists is related to many factors:
  - a. Multiple restructures have resulted in a high turnover of staff.
  - b. Pay rates differ between the public and private sector for occupational health expertise.
  - c. Occupational health activity is a low priority for the regulator.
  - d. To improve the reach of compliance activity, available resources have been used to tackle both health and safety issues.

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<sup>21</sup> Allen & Clarke. Occupational health and safety in New Zealand. Technical Report prepared for the National Occupational Health and Safety Advisory Committee: NOHSAC Technical Report 7: Wellington, 2006.



86. Whilst in theory self-regulation requires fewer inspectors, the ability of industry to manage occupational health is too low to enable effective self-regulation of occupational health at present. It is critical for the regulator to have enough competent staff to deliver its intervention programmes and ensure compliance with legislative requirements.
87. MBIE also employs Departmental Medical Practitioners (DMPs). They have been reduced in number, and the compliance agency as well as the general inspectorate and many of the DMPs themselves do not have clarity about the role, responsibilities or functions that the DMPs perform. They are consequently under-utilised.
88. The training programmes developed by MBIE are available to MNZ and CAA inspectorate staff but there is no requirement for consistent training programmes to be implemented across the main health and safety compliance agencies. Equally there is no formal requirement that once training has been received, the inspector will enter a formal ongoing professional development programme to maintain and develop their knowledge over time.
89. The HSNO Act is enforced by warranted enforcement officers from multiple compliance agencies, and private test certifiers who undertake an assurance role. Some compliance agencies have an interest only in emergency response requirements (i.e. Territorial Authorities) and others including those at MoH have an interest in public health implications.
90. It is difficult to ensure oversight, consistency in application, transparency of activity and clarity of requirements across such a large number of enforcing authorities – and HSNO compliance and enforcement activity has been reducing over time.
91. Some of the agencies struggle to provide the required 6-month supervisory requirement for the appointment of HSNO enforcement officers. Many generalist health and safety inspectors have admitted not wanting to be warranted under HSNO because they perceive it as complex. There are issues with the consistency of training programmes and consistency of application of knowledge amongst test certifiers. This reduces confidence in the ability of the agencies to regulate HSNO.

### **Industry is responsible, but not equipped for, occupational health**

92. Employers have the legal duty to ensure the health and safety of their people. However, they receive only limited guidance and advice from the compliance agencies and industry bodies.
93. Occupational health is not part of standard management training. It can be complex in some situations, the cost and burden of ill health can be invisible, and awareness of occupational health issues amongst industry is generally poor.<sup>22</sup>

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<sup>22</sup> Occupational Health Advisory Committee, Report and recommendations on improving access to occupational health support. HSE





Combined, this means there is limited ability or imperative for industry to identify and manage the issues.

94. Consultant practitioners can be expensive for some SMEs to access, and few businesses have internal occupational health expertise. If industry are not aware of occupational health issues, and if they are not motivated or supported to manage occupational ill health, there will be no improvement in performance.

### **Practitioners capability and registration requirements vary**

95. Occupational health covers a multitude of disciplines including occupational health nurses, occupational hygienists, occupational therapists, occupational ergonomists and health and safety practitioners.
96. Some of these disciplines have registration programmes, codes of ethics and professional development requirements – in the event of poor service or advice there are complaints and disciplinary procedures providing industry with a level of confidence that the advice they receive is robust. This is not the case for all disciplines – particularly so for health and safety practitioners (both consultants and in-house advisors) who have no requirement to be registered or to undertake professional development.
97. The professional bodies in New Zealand have been unable to gain traction to establish a voluntary scheme. Of the 700+ members of the New Zealand Institute of Safety Management (NZISM) only around 250 members have been graded through their internationally aligned accreditation programme. It can be difficult for industry to know whether they are getting robust advice from a practitioner who is competent to provide it.
98. The limited clarity around the core competencies required to undertake occupational health activity can make it difficult for practitioners to identify what training they should have received to undertake specific tasks. There have been recent examples of occupational health nurses undertaking exposure monitoring for example, which occupational hygienists may suggest they are not competent to undertake.
99. With no Government or industry imperative for generalist health and safety practitioners to belong to a professional body and be part of a professional development pathway there is reduced understanding of training needs, access to training programmes, and impetus to undergo training.

### **Medical providers require ongoing professional development in occupational health**

100. Increasing the capability and capacity amongst the compliance agency and health and safety practitioners alone is unlikely to solve occupational health issues. Workers and others generally seek advice on ill health from medical providers. It is therefore essential that medical providers, particularly those in primary care, are able to recognise the possible links between a person's health and their occupation (or previous occupation(s)).



101. Those within the medical system (GPs, general nurses and physicians) have registration and ongoing professional development requirements, however, there is limited training for medical providers (doctors and nurses) who do not wish to pursue occupational health as a specialty. Many of these medical providers need a level of understanding in occupational health (i.e. consultant dermatologists, GPs, practice nurses) to enable them to identify occupational causes for the symptoms their patients present with.
102. Student medical professionals currently receive on average around one days training in occupational health. For those medical providers who have completed their medical training, their ongoing professional development requirements do not stipulate the topics that must be covered, so a medical provider may not receive any additional occupational health training. This makes it less likely for an occupational cause of ill health to be recognised, investigated, diagnosed and reported. Increased occupational health training is required for medical providers to secure good health outcomes.<sup>6</sup>

## CONCLUSIONS

103. New Zealand's performance in occupational health is very poor. Unlike occupational injury, the estimated 804 deaths a year from occupational ill health and disease receive little government, media or business attention. Inadequate information systems and research levels mean we do not know the size and nature of the problem with any accuracy, and the system is slow to respond to new or emerging risks. Activity is fragmented across multiple regulators, disciplines and sectors with no effective co-ordination or leadership. There is scarce occupational health capacity and capability within the system to secure improvement. The social and economic burden of occupational ill health and disease remains hidden. Occupational health has been left in the 'too hard basket'.
104. The barriers to improved performance in occupational health in New Zealand have been known for many years. Many recommendations for improvement have been made, yet there has been little government leadership for change<sup>23</sup>. Action must be taken now, and the occupational health burden addressed equally with other causes of harm.

## RECOMMENDATIONS

105. The recommendations to address the barriers and issues identified in this information paper are outlined in a supplementary options paper provided to the Taskforce.

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<sup>23</sup> NOHSAC 5<sup>th</sup> Annual report to the Minister

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**End of paper**

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## APPENDIX 1

**Table 1. Hazards and Harm**

The Table below outlines some of the hazards and harms that fall within the purview of occupational health related activity.

<b>Harm</b>	<b>hazards</b>
infectious diseases: tuberculosis, pneumococcal disease leptospirosis	Biological / infectious agents
cancers	chemicals, wood dusts, radiation including UVR, tobacco smoke
Psychosocial illness: anxiety depression psychological disorders	Stressors in the workplace Long working hours Limited autonomy or job control Bullying
diseases of the nervous system toxic encephalopathy	neurotoxins chronic exposure to solvents
musculoskeletal disorders	Manual handling, inadequate / unsuitable workplace design, repetitive movements
respiratory disease chronic obstructive pulmonary disease pneumoconiosis	wood, coal and other dusts, minerals such as silica, fertilisers, chemicals and solvents
skin conditions: dermatitis	chemicals (especially cutting fluids and solvents) wet work such as in food handling and preparation;
noise-induced hearing loss	excessive noise ototoxic chemical exposure

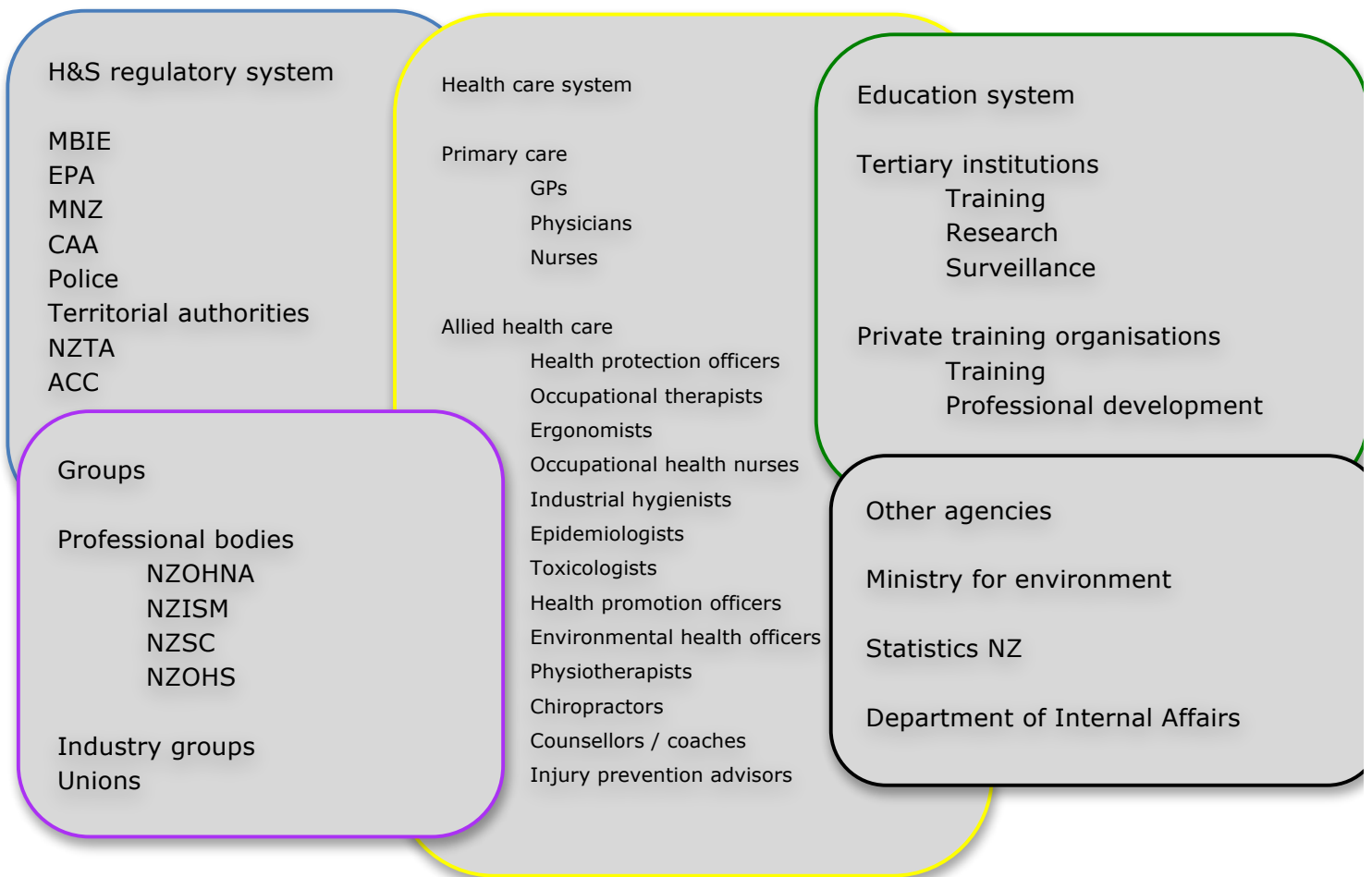
**Source: DoL Occupational Health Action Plan**



## APPENDIX 2.

### Occupational health sectors and disciplines

The diagram below outlines some of the disciplines and sectors necessary for occupational health functions.





## APPENDIX 3

### Examples of occupational health data systems

The table below outlines some of the previous and current occupational health data collection methods. Further more detailed information can be found in the NOHSAC Technical Report Number 2.<sup>24</sup>

Data collected	Collected by
Diseases caused by a chemical agent (e.g. lead poisoning) Diseases caused by a physical agent (e.g. noise-induced hearing loss) Diseases caused by a biological agent (e.g. leptospirosis) Occupational respiratory diseases Occupational skin diseases Occupational musculoskeletal disorders Mental and behavioural illnesses Occupational cancers.	MBIE - Notifiable occupational disease system (NODS) A voluntary system
Claims for personal injury. The information relating to accepted claims for occupational ill health and disease, (either where the disease is outlined in schedule 2 of the ACC Act and where there is a definitive occupational cause or and where there has been an injury in relation to specified circumstances). Not all occupational ill health or disease is covered, and not all claims are accepted – even when there is an occupational cause.	ACC
Notifications of deaths – on death certificates the cause is outlined on coroners' reports. The coroners' reports are not electronic or amalgamated and they are case by case – not nationally standardised or analysed.	DIA
Serious harm notifications (usually for items including musculoskeletal issues) the data is not integrated with the NZHIS or ACC.	MBIE – Hazard (workbench)
National minimum dataset (hospital admissions etc), mortality collection, cancer registry. No work-relatedness category is included, and any indication of occupation is not standardised. Such information would include notifications to the medical officer of health for diseases including legionella.	NZHIS
EpiSurv collates notifiable disease information on a real-time basis from the Public Health Services (PHS) in New Zealand. Key data fields collected include case demographics, clinical features and risk factors. EpiSurv also incorporates an outbreak functionality	EpiSurv - ESR

<sup>24</sup> NOHSAC Surveillance of Occupational disease and injury – Report to the Minister



<p>that enables cases to be linked via a common cause. Information can be viewed via customisable local and national reports and maps. The types of issues recorded include Hazardous substance injuries, chemical poisonings from the environment, decompression sickness, lead absorption. Not all the information is all occupationally-related. ESR is responsible for Notifiable Disease Surveillance Outbreak Surveillance Sexually Transmitted Infections Chemical Injuries (Poisonings) Influenza viruses Respiratory, enteric and herpes viruses Spraydrift Surveillance (DriftNet)</p>	
<p>The toxic effect of chemicals in the environment – more public health focused and don't include occupational details.</p>	<p>National poisons centre</p>
<p>Electronic reporting tool for hazardous substances disease and injury observed in primary care – not just occupational. This will be incorporated into GP patient management systems.</p>	<p>Hazardous substances surveillance system – centre for public health research in conjunction with BPAC</p>
<p>In September 2007 the Hazardous Substances Injury (HSI) case report form (CRF) was launched in EpiSurv as the mechanism for collecting hazardous substance injury information for the Ministry of Health. The CISS was intended to encompass this legislative requirement, and extend it to achieve the greatest public health utility. For this reason, hazardous substances incorporated in the CISS included substances not covered by the HSNO Act such as medicines in finished dose form and party drugs or alcohol when classified as a food. The purpose of s143 and the CISS was therefore to provide information for public health action and informing health policy formation. These measures in combination can be used to reduce the incidence of hazardous substance injuries in New Zealand and improve public health</p>	<p>Chemical Injury Surveillance System (CISS – to 2009)</p>

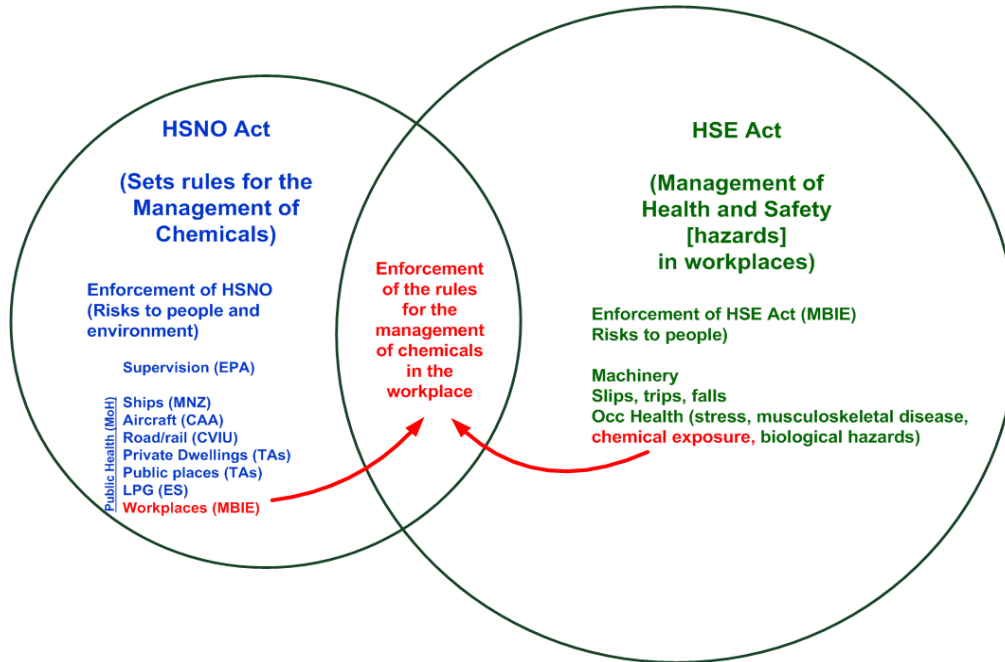




## Appendix 4

### HSNO and HSE interaction

The diagram below provides a graphical representation of HSE and HSNO interaction for occupational health activity<sup>25</sup>



<sup>25</sup> Source: Andrea Eng: Environmental Protection Authority